
HTTPretty Documentation

Release 1.1.2

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May 20, 2021

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HTTP Client mocking tool for Python created by [Gabriel Falcão](#) . It provides a full fake TCP socket module. Inspired by [FakeWeb](#)

Looking for the [Github Repository](#) ?

Python Support:

- **3.6**
- **3.7**
- **3.8**
- **3.9**

[Github](#)

WHAT IS HTTPRETTY ?

Once upon a time a python developer wanted to use a RESTful api, everything was fine but until the day he needed to test the code that hits the RESTful API: what if the API server is down? What if its content has changed ?

Don't worry, HTTPretty is here for you:

```
import logging
import requests
import httpretty

from sure import expect

logging.getLogger('httpretty.core').setLevel(logging.DEBUG)

@httpretty.activate(allow_net_connect=False)
def test_yipit_api_returning_deals():
    httpretty.register_uri(httpretty.GET, "http://api.yipit.com/v1/deals/",
                           body='[{"title": "Test Deal"}]',
                           content_type="application/json")

    response = requests.get('http://api.yipit.com/v1/deals/')

    expect(response.json()).to.equal([{"title": "Test Deal"}])
```

1.1 A more technical description

HTTPretty is a python library that swaps the modules `socket` and `ssl` with fake implementations that intercept HTTP requests at the level of a TCP connection.

It is inspired on Ruby's [FakeWeb](#).

If you come from the Ruby programming language this would probably sound familiar :smiley:

1.2 Installing

Installing httpretty is as easy as:

```
pip install httpretty
```


2.1 expecting a simple response body

```
import requests
import httpretty

def test_one():
    httpretty.enable(verbose=True, allow_net_connect=False) # enable HTTPretty so that
    ↪ it will monkey patch the socket module
    httpretty.register_uri(httpretty.GET, "http://yipit.com/",
                           body="Find the best daily deals")

    response = requests.get('http://yipit.com')

    assert response.text == "Find the best daily deals"

    httpretty.disable() # disable afterwards, so that you will have no problems in code
    ↪ that uses that socket module
    httpretty.reset() # reset HTTPretty state (clean up registered urls and request
    ↪ history)
```

2.2 making assertions in a callback that generates the response body

```
import requests
import json
import httpretty

@httpretty.activate
def test_with_callback_response():
    def request_callback(request, uri, response_headers):
        content_type = request.headers.get('Content-Type')
        assert request.body == '{"nothing": "here"}', 'unexpected body: {}'.format(request.
    ↪ body)
        assert content_type == 'application/json', 'expected application/json but received
    ↪ Content-Type: {}'.format(content_type)
        return [200, response_headers, json.dumps({"hello": "world"})]

    httpretty.register_uri(
```

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```
httpretty.POST, "https://httpretty.example.com/api",
body=request_callback)

response = requests.post('https://httpretty.example.com/api', headers={'Content-Type':
↪ 'application/json'}, data={'nothing': 'here'})

expect(response.json()).to.equal({"hello": "world"})
```

2.3 Link headers

Tests link headers by using the *adding_headers* parameter.

```
import requests
from sure import expect
import httpretty

@httpretty.activate
def test_link_response():
    first_url = "http://foo-api.com/data"
    second_url = "http://foo-api.com/data?page=2"
    link_str = "<%s>; rel='next'" % second_url

    httpretty.register_uri(
        httpretty.GET,
        first_url,
        body='{"success": true}',
        status=200,
        content_type="text/json",
        adding_headers={"Link": link_str},
    )
    httpretty.register_uri(
        httpretty.GET,
        second_url,
        body='{"success": false}',
        status=500,
        content_type="text/json",
    )
    # Performs a request to `first_url` followed by some testing
    response = requests.get(first_url)
    expect(response.json()).to.equal({"success": True})
    expect(response.status_code).to.equal(200)
    next_url = response.links["next"]["url"]
    expect(next_url).to.equal(second_url)

    # Follow the next URL and perform some testing.
    response2 = requests.get(next_url)
    expect(response2.json()).to.equal({"success": False})
    expect(response2.status_code).to.equal(500)
```

MOTIVATION

When building systems that access external resources such as RESTful webservices, XMLRPC or even simple HTTP requests, we stumble in the problem:

“I’m gonna need to mock all those requests”

It can be a bit of a hassle to use something like `mock.Mock` to stub the requests, this can work well for low-level unit tests but when writing functional or integration tests we should be able to allow the http calls to go through the TCP socket module.

HTTPretty [monkey patches](#) Python’s `socket` core module with a fake version of the module.

Because HTTPretty implements a fake the modules `socket` and `ssl` you can use write tests to code against any HTTP library that use those modules.

ACKNOWLEDGEMENTS

4.1 Caveats

4.1.1 `forcing_headers` + Content-Length

When using the `forcing_headers` option make sure to add the header `Content-Length` otherwise calls using `requests` will try to load the response endlessly.

4.1.2 Supported Libraries

Because HTTPretty works in the socket level it should work with any HTTP client libraries, although it is `battle tested` against:

- `requests`
- `httplib2`
- `urllib2`

API REFERENCE

5.1 register_uri

classmethod `httpretty.register_uri`(*method, uri, body*={'message': "HTTPretty :)"},
adding_headers=None, *forcing_headers*=None, *status*=200,
responses=None, *match_querystring*=False, *priority*=0, ****headers**)

```
import httpretty

def request_callback(request, uri, response_headers):
    content_type = request.headers.get('Content-Type')
    assert request.body == '{"nothing": "here"}', 'unexpected body: {}'.
    ↪format(request.body)
    assert content_type == 'application/json', 'expected application/json but
    ↪received Content-Type: {}'.format(content_type)
    return [200, response_headers, json.dumps({"hello": "world"})]

httpretty.register_uri(
    HTTPretty.POST, "https://httpretty.example.com/api",
    body=request_callback)

with httpretty.enabled():
    requests.post('https://httpretty.example.com/api', data='{"nothing": "here"}',
    ↪headers={'Content-Type': 'application/json'})

assert httpretty.latest_requests[-1].url == 'https://httpbin.org/ip'
```

Parameters

- **method** – one of `httpretty.GET`, `httpretty.PUT`, `httpretty.POST`, `httpretty.DELETE`, `httpretty.HEAD`, `httpretty.PATCH`, `httpretty.OPTIONS`, `httpretty.CONNECT`
- **uri** – a string or regex pattern (e.g.: “`https://httpbin.org/ip`”)
- **body** – a string, defaults to `{"message": "HTTPretty :)"}`
- **adding_headers** – dict - headers to be added to the response
- **forcing_headers** – dict - headers to be forcefully set in the response

- **status** – an integer, defaults to **200**
- **responses** – a list of entries, ideally each created with [Response\(\)](#)
- **priority** – an integer, useful for setting higher priority over previously registered urls. defaults to zero
- **match_querystring** – bool - whether to take the querystring into account when matching an URL
- **headers** – headers to be added to the response

Warning: When using a port in the request, add a trailing slash if no path is provided otherwise Httpretty will not catch the request. Ex: `httpretty.register_uri(httpretty.GET, 'http://fakeuri.com:8080/', body='{"hello": "world"}')`

5.2 enable

classmethod `httpretty.enable(allow_net_connect=True, verbose=False)`

Enables HTTPretty.

Parameters

- **allow_net_connect** – boolean to determine if unmatched requests are forwarded to a real network connection OR throw [httpretty.errors.UnmockedError](#).
- **verbose** – boolean to set HTTPretty’s logging level to DEBUG

```
import re, json
import httpretty

httpretty.enable(allow_net_connect=True, verbose=True)

httpretty.register_uri(
    httpretty.GET,
    re.compile(r'http://.*'),
    body=json.dumps({'man': 'in', 'the': 'middle'})
)

response = requests.get('https://foo.bar/foo/bar')

response.json().should.equal({
    "man": "in",
    "the": "middle",
})
```

Warning: after calling this method the original `socket` is replaced with [httpretty.core.fakesock](#). Make sure to call [disable\(\)](#) after done with your tests or use the `httpretty.enabled` as decorator or `context-manager`

5.3 disable

classmethod `httpretty.disable()`

Disables HTTPretty entirely, putting the original `socket` module back in its place.

```
import re, json
import httpretty

httpretty.enable()
# request passes through fake socket
response = requests.get('https://httpbin.org')

httpretty.disable()
# request uses real python socket module
response = requests.get('https://httpbin.org')
```

Note: This method does not call `httpretty.core.reset()` automatically.

5.4 is_enabled

classmethod `httpretty.is_enabled()`

Check if HTTPretty is enabled

Returns bool

```
import httpretty

httpretty.enable()
assert httpretty.is_enabled() == True

httpretty.disable()
assert httpretty.is_enabled() == False
```

5.5 last_request

`httpretty.last_request()`

Returns the last *HTTPrettyRequest*

5.6 latest_requests

`httpretty.latest_requests()`
returns the history of made requests

5.7 activate

`httpretty.activate`
alias of `httpretty.core.httprettified`

5.8 httprettified

`httpretty.core.httprettified(test=None, allow_net_connect=True, verbose=False)`
decorator for test functions

Tip: Also available under the alias `httpretty.activate()`

Parameters `test` – a callable

example usage with `nosetests`

```
import sure
from httpretty import httprettified

@httprettified
def test_using_nosetests():
    httpretty.register_uri(
        httpretty.GET,
        'https://httpbin.org/ip'
    )

    response = requests.get('https://httpbin.org/ip')

    response.json().should.equal({
        "message": "HTTPretty :)"
    })
```

example usage with `unittest` module

```
import unittest
from sure import expect
from httpretty import httprettified

@httprettified
class TestWithPyUnit(unittest.TestCase):
    def test_httpbin(self):
        httpretty.register_uri(httpretty.GET, 'https://httpbin.org/ip')
        response = requests.get('https://httpbin.org/ip')
```

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```
expect(response.json()).to.equal({
    "message": "HTTPretty :)"
})
```

5.9 enabled

`httpretty.enabled`

alias of `httpretty.core.httprettized`

5.10 httprettized

class `httpretty.core.httprettized`(*allow_net_connect=True, verbose=False*)
context-manager for enabling HTTPretty.

Tip: Also available under the alias `httpretty.enabled()`

```
import json
import httpretty

httpretty.register_uri(httpretty.GET, 'https://httpbin.org/ip', body=json.dumps({
    ↪ 'origin': '42.42.42.42'}))
with httpretty.enabled():
    response = requests.get('https://httpbin.org/ip')

assert httpretty.latest_requests[-1].url == 'https://httpbin.org/ip'
assert response.json() == {'origin': '42.42.42.42'}
```

5.11 HTTPrettyRequest

class `httpretty.core.HTTPrettyRequest`(*headers, body="", sock=None, path_encoding='iso-8859-1'*)

Represents a HTTP request. It takes a valid multi-line, `\r\n` separated string with HTTP headers and parse them out using the internal `parse_request` method.

It also replaces the *rfile* and *wfile* attributes with `io.BytesIO` instances so that we guarantee that it won't make any I/O, neither for writing nor reading.

It has some convenience attributes:

`headers` -> a mimetype object that can be cast into a dictionary, contains all the request headers

`protocol` -> the protocol of this host, inferred from the port of the underlying fake TCP socket.

`host` -> the hostname of this request.

`url` -> the full url of this request.

`path` -> the path of the request.

`method` -> the HTTP method used in this request.

`querystring` -> a dictionary containing lists with the attributes. Please notice that if you need a single value from a query string you will need to get it manually like:

`body` -> the request body as a string.

`parsed_body` -> the request body parsed by `parse_request_body`.

```
>>> request.querystring
{'name': ['Gabriel Falcao']}
>>> print request.querystring['name'][0]
```

property method

the HTTP method used in this request

parse_querystring(*qs*)

parses an UTF-8 encoded query string into a dict of string lists

Parameters `qs` – a querystring

Returns a dict of lists

parse_request_body(*body*)

Attempt to parse the post based on the content-type passed. Return the regular body if not

Parameters `body` – string

Returns a python object such as dict or list in case the deserialization succeeded. Else returns the given param body

property protocol

the protocol used in this request

querystring

a dictionary containing parsed request body or None if HTTPrettyRequest doesn't know how to parse it. It currently supports parsing body data that was sent under the content-type headers values: `application/json` or `application/x-www-form-urlencoded`

property url

the full url of this recorded request

5.12 HTTPrettyRequestEmpty

class `httpretty.core.HTTPrettyRequestEmpty`

Represents an empty [HTTPrettyRequest](#) where all its properties are somehow empty or None

5.13 FakeSockFile

class `httpretty.core.FakeSockFile`

Fake socket file descriptor. Under the hood all data is written in a temporary file, giving it a real file descriptor number.

5.14 FakeSSLSocket

class httpretty.core.**FakeSSLSocket**(*sock*, **args*, ***kw*)
 Shorthand for [fakesock](#)

5.15 URIInfo

class httpretty.**URIInfo**(*username=""*, *password=""*, *hostname=""*, *port=80*, *path="/"*, *query=""*, *fragment=""*,
scheme="", *last_request=None*)
 Internal representation of [URIs](#)

Tip: all arguments are optional

Parameters

- **username** –
- **password** –
- **hostname** –
- **port** –
- **path** –
- **query** –
- **fragment** –
- **scheme** –
- **last_request** –

classmethod **from_uri**(*uri*, *entry*)

Parameters

- **uri** – string
- **entry** – an instance of [Entry](#)

full_url(*use_querystring=True*)

Parameters **use_querystring** – bool

Returns a string with the full url with the format {scheme}://{credentials}{domain}{path}{query}

get_full_domain()

Returns a string in the form {domain}:{port} or just the domain if the port is 80 or 443

5.16 URIMatcher

class httpretty.URIMatcher(*uri, entries, match_querystring=False, priority=0*)

get_next_entry(*method, info, request*)

Cycle through available responses, but only once. Any subsequent requests will receive the last response

5.17 Entry

class httpretty.Entry(*method, uri, body, adding_headers=None, forcing_headers=None, status=200, streaming=False, **headers*)

Created by [register_uri\(\)](#) and stored in memory as internal representation of a HTTP request/response definition.

Parameters

- **method** (*str*) – One of httpretty.GET, httpretty.PUT, httpretty.POST, httpretty.DELETE, httpretty.HEAD, httpretty.PATCH, httpretty.OPTIONS, httpretty.CONNECT.
- **uri** (*str/re.Pattern*) – The URL to match
- **adding_headers** (*dict*) – Extra headers to be added to the response
- **forcing_headers** (*dict*) – Overwrite response headers.
- **status** (*int*) – The status code for the response, defaults to 200.
- **streaming** (*bool*) – Whether should stream the response into chunks via generator.
- **headers** – Headers to inject in the faked response.

Returns containing the request-matching metadata.

Return type httpretty.Entry

Warning: When using the `forcing_headers` option make sure to add the header `Content-Length` to match at most the total body length, otherwise some HTTP clients can hang indefinitely.

fill_filekind(*fk*)

writes HTTP Response data to a file descriptor

Param fk a file-like object

Warning: side-effect: this method moves the cursor of the given file object to zero

normalize_headers(*headers*)

Normalize keys in header names so that `Content-type` becomes `content-type`

Parameters headers – dict

Returns dict

validate()

validates the body size with the value of the `Content-Length` header

MODULES

6.1 Core

class `httpretty.core.EmptyRequestHeaders`

A dict subclass used as internal representation of empty request headers

class `httpretty.core.Entry`(*method, uri, body, adding_headers=None, forcing_headers=None, status=200, streaming=False, **headers*)

Created by `register_uri()` and stored in memory as internal representation of a HTTP request/response definition.

Parameters

- **method** (*str*) – One of `httpretty.GET`, `httpretty.PUT`, `httpretty.POST`, `httpretty.DELETE`, `httpretty.HEAD`, `httpretty.PATCH`, `httpretty.OPTIONS`, `httpretty.CONNECT`.
- **uri** (*str/re.Pattern*) – The URL to match
- **adding_headers** (*dict*) – Extra headers to be added to the response
- **forcing_headers** (*dict*) – Overwrite response headers.
- **status** (*int*) – The status code for the response, defaults to `200`.
- **streaming** (*bool*) – Whether should stream the response into chunks via generator.
- **headers** – Headers to inject in the faked response.

Returns containing the request-matching metadata.

Return type `httpretty.Entry`

Warning: When using the `forcing_headers` option make sure to add the header `Content-Length` to match at most the total body length, otherwise some HTTP clients can hang indefinitely.

fill_filekind(*fk*)

writes HTTP Response data to a file descriptor

Parm fk a file-like object

Warning: side-effect: this method moves the cursor of the given file object to zero

normalize_headers(*headers*)

Normalize keys in header names so that COntent-tYPe becomes content-type

Parameters *headers* – dict

Returns dict

validate()

validates the body size with the value of the Content-Length header

class httpretty.core.**FakeSSLSocket**(*sock, *args, **kw*)

Shorthand for *fakesock*

class httpretty.core.**FakeSockFile**

Fake socket file descriptor. Under the hood all data is written in a temporary file, giving it a real file descriptor number.

class httpretty.core.**HTTPrettyRequest**(*headers, body="", sock=None, path_encoding='iso-8859-1'*)

Represents a HTTP request. It takes a valid multi-line, \r\n separated string with HTTP headers and parse them out using the internal *parse_request* method.

It also replaces the *rfile* and *wfile* attributes with *io.BytesIO* instances so that we guarantee that it won't make any I/O, neither for writing nor reading.

It has some convenience attributes:

headers -> a mimetype object that can be cast into a dictionary, contains all the request headers

protocol -> the protocol of this host, inferred from the port of the underlying fake TCP socket.

host -> the hostname of this request.

url -> the full url of this request.

path -> the path of the request.

method -> the HTTP method used in this request.

querystring -> a dictionary containing lists with the attributes. Please notice that if you need a single value from a query string you will need to get it manually like:

body -> the request body as a string.

parsed_body -> the request body parsed by *parse_request_body*.

```
>>> request.querystring
{'name': ['Gabriel Falcao']}
>>> print request.querystring['name'][0]
```

property method

the HTTP method used in this request

parse_querystring(*qs*)

parses an UTF-8 encoded query string into a dict of string lists

Parameters *qs* – a querystring

Returns a dict of lists

parse_request_body(*body*)

Attempt to parse the post based on the content-type passed. Return the regular body if not

Parameters *body* – string

Returns a python object such as dict or list in case the deserialization succeeded. Else returns the given param body

property protocol

the protocol used in this request

querystring

a dictionary containing parsed request body or None if HTTPrettyRequest doesn't know how to parse it.
It currently supports parsing body data that was sent under the `content-type` headers values:
`application/json` or `application/x-www-form-urlencoded`

property url

the full url of this recorded request

class httpretty.core.HTTPrettyRequestEmpty

Represents an empty [HTTPrettyRequest](#) where all its properties are somehow empty or None

class httpretty.core.URIInfo(*username="", password="", hostname="", port=80, path='/', query="", fragment="", scheme="", last_request=None*)

Internal representation of [URIs](#)

Tip: all arguments are optional

Parameters

- **username** –
- **password** –
- **hostname** –
- **port** –
- **path** –
- **query** –
- **fragment** –
- **scheme** –
- **last_request** –

classmethod from_uri(*uri, entry*)**Parameters**

- **uri** – string
- **entry** – an instance of [Entry](#)

full_url(*use_querystring=True*)**Parameters** *use_querystring* – bool

Returns a string with the full url with the format `{scheme}://{credentials}{domain}{path}{query}`

get_full_domain()

Returns a string in the form `{domain}:{port}` or just the domain if the port is 80 or 443

`httpretty.core.create_fake_connection(address, timeout=<object object>, source_address=None)`
 drop-in replacement for `socket.create_connection()`

`httpretty.core.fake_getaddrinfo(host, port, family=None, socktype=None, proto=None, flags=None)`
 drop-in replacement for `socket.getaddrinfo()`

`httpretty.core.fake_gethostbyname(host)`
 drop-in replacement for `socket.gethostbyname()`

`httpretty.core.fake_gethostname()`
 drop-in replacement for `socket.gethostname()`

`httpretty.core.fake_wrap_socket(orig_wrap_socket_fn, *args, **kw)`
 drop-in replacement for `py:func:ssl.wrap_socket`

class `httpretty.core.fakesock`
 fake `socket`

class `socket(family=<AddressFamily.AF_INET: 2>, type=<SocketKind.SOCK_STREAM: 1>, proto=0, fileno=None)`

drop-in replacement for `socket.socket`

bind(*address*)

bind_truesock(*address*)

close()

connect(*address*)

connect_truesock(*request=None, address=None*)

create_socket(*address=None*)

fileno()

forward_and_trace(*function_name, *a, **kw*)

getpeercert(**a, **kw*)

property *host*

makefile(*mode='r', bufsize=-1*)

Returns this fake socket's own tempfile buffer.

If there is an entry associated with the socket, the file descriptor gets filled in with the entry data before being returned.

real_sendall(*data, *args, **kw*)

Sends data to the remote server. This method is called when HTTPretty identifies that someone is trying to send non-http data.

The received bytes are written in this socket's tempfile buffer so that HTTPretty can return it accordingly when necessary.

real_socket_is_connected()

recv(*buffer_size=0, *args, **kwargs*)

recv_into(**args, **kwargs*)

recvfrom(**args, **kwargs*)

recvfrom_into(**args, **kwargs*)

send(*data, *args, **kwargs*)

```

sendall(data, *args, **kw)
sendto(*args, **kwargs)
setsockopt(level, optname, value)
settimeout(new_timeout)
ssl(sock, *args, **kw)

```

`httpretty.core.get_default_thread_timeout()`
sets the default thread timeout for HTTPretty threads

Returns int

`httpretty.core.httprettified(test=None, allow_net_connect=True, verbose=False)`
decorator for test functions

Tip: Also available under the alias `httpretty.activate()`

Parameters **test** – a callable

example usage with `nosetests`

```

import sure
from httpretty import httprettified

@httprettified
def test_using_nosetests():
    httpretty.register_uri(
        httpretty.GET,
        'https://httpbin.org/ip'
    )

    response = requests.get('https://httpbin.org/ip')

    response.json().should.equal({
        "message": "HTTPretty :)"
    })

```

example usage with `unittest` module

```

import unittest
from sure import expect
from httpretty import httprettified

@httprettified
class TestWithPyUnit(unittest.TestCase):
    def test_httpbin(self):
        httpretty.register_uri(httpretty.GET, 'https://httpbin.org/ip')
        response = requests.get('https://httpbin.org/ip')
        expect(response.json()).to.equal({
            "message": "HTTPretty :)"
        })

```

class `httpretty.core.httprettized`(*allow_net_connect=True, verbose=False*)
 context-manager for enabling HTTPretty.

Tip: Also available under the alias `httpretty.enabled()`

```
import json
import httpretty

httpretty.register_uri(httpretty.GET, 'https://httpbin.org/ip', body=json.dumps({
    ↪ 'origin': '42.42.42.42'}))
with httpretty.enabled():
    response = requests.get('https://httpbin.org/ip')

assert httpretty.latest_requests[-1].url == 'https://httpbin.org/ip'
assert response.json() == {'origin': '42.42.42.42'}
```

class `httpretty.core.httpretty`

manages HTTPretty’s internal request/response registry and request matching.

classmethod `Response`(*body, method=None, uri=None, adding_headers=None, forcing_headers=None, status=200, streaming=False, **kw*)

Shortcut to create an [Entry](#) that takes the body as first positional argument.

See also:

the parameters of this function match those of the [Entry](#) constructor.

Parameters

- **body** (*str*) – The body to return as response..
- **method** (*str*) – One of `httpretty.GET`, `httpretty.PUT`, `httpretty.POST`, `httpretty.DELETE`, `httpretty.HEAD`, `httpretty.PATCH`, `httpretty.OPTIONS`, `httpretty.CONNECT`.
- **uri** (*str/re.Pattern*) – The URL to match
- **adding_headers** (*dict*) – Extra headers to be added to the response
- **forcing_headers** (*dict*) – Overwrite **any** response headers, even “Content-Length”.
- **status** (*int*) – The status code for the response, defaults to 200.
- **streaming** (*bool*) – Whether should stream the response into chunks via generator.
- **kwargs** – Keyword-arguments are forwarded to [Entry](#)

Returns containing the request-matching metadata.

Return type `httpretty.Entry`

classmethod `disable()`

Disables HTTPretty entirely, putting the original `socket` module back in its place.

```
import re, json
import httpretty

httpretty.enable()
```

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```
# request passes through fake socket
response = requests.get('https://httpbin.org')

httpretty.disable()
# request uses real python socket module
response = requests.get('https://httpbin.org')
```

Note: This method does not call `httpretty.core.reset()` automatically.

classmethod `enable(allow_net_connect=True, verbose=False)`

Enables HTTPretty.

Parameters

- **allow_net_connect** – boolean to determine if unmatched requests are forwarded to a real network connection OR throw `httpretty.errors.UnmockedError`.
- **verbose** – boolean to set HTTPretty’s logging level to DEBUG

```
import re, json
import httpretty

httpretty.enable(allow_net_connect=True, verbose=True)

httpretty.register_uri(
    httpretty.GET,
    re.compile(r'http://.*'),
    body=json.dumps({'man': 'in', 'the': 'middle'})
)

response = requests.get('https://foo.bar/foo/bar')

response.json().should.equal({
    "man": "in",
    "the": "middle",
})
```

Warning: after calling this method the original `socket` is replaced with `httpretty.core.fakesock`. Make sure to call `disable()` after done with your tests or use the `httpretty.enabled` as decorator or `context-manager`

classmethod `historyfy_request(headers, body="", sock=None)`

appends request to a list for later retrieval

```
import httpretty

httpretty.register_uri(httpretty.GET, 'https://httpbin.org/ip', body='')
with httpretty.enabled():
    requests.get('https://httpbin.org/ip')

assert httpretty.latest_requests[-1].url == 'https://httpbin.org/ip'
```

classmethod `is_enabled()`
 Check if HTTPretty is enabled
Returns bool

```
import httpretty

httpretty.enable()
assert httpretty.is_enabled() == True

httpretty.disable()
assert httpretty.is_enabled() == False
```

classmethod `match_http_address(hostname, port)`

Parameters

- **hostname** – a string
- **port** – an integer

Returns an URLMatcher or None

classmethod `match_https_hostname(hostname)`

Parameters **hostname** – a string

Returns an URLMatcher or None

classmethod `match_uriinfo(info)`

Parameters **info** – an *URIInfo*

Returns a 2-item tuple: (URLMatcher, *URIInfo*) or (None, [])

classmethod `playback(filename, allow_net_connect=True, verbose=False)`

```
import io
import json
import requests
import httpretty

with httpretty.record('/tmp/ip.json'):
    data = requests.get('https://httpbin.org/ip').json()

with io.open('/tmp/ip.json') as fd:
    assert data == json.load(fd)
```

Parameters **filename** – a string

Returns

a context-manager

classmethod `record(filename, indentation=4, encoding='utf-8', verbose=False, allow_net_connect=True, pool_manager_params=None)`

```
import io
import json
import requests
import httpretty

with httpretty.record('/tmp/ip.json'):
    data = requests.get('https://httpbin.org/ip').json()

with io.open('/tmp/ip.json') as fd:
    assert data == json.load(fd)
```

Parameters

- **filename** – a string
- **indentation** – an integer, defaults to 4
- **encoding** – a string, defaults to “utf-8”

Returns

a context-manager

```
classmethod register_uri(method, uri, body='{"message": "HTTPretty :) }', adding_headers=None,
                        forcing_headers=None, status=200, responses=None,
                        match_querystring=False, priority=0, **headers)
```

```
import httpretty

def request_callback(request, uri, response_headers):
    content_type = request.headers.get('Content-Type')
    assert request.body == '{"nothing": "here"}', 'unexpected body: {}'.format(request.body)
    assert content_type == 'application/json', 'expected application/json but received Content-Type: {}'.format(content_type)
    return [200, response_headers, json.dumps({"hello": "world"})]

httpretty.register_uri(
    HTTPretty.POST, "https://httpretty.example.com/api",
    body=request_callback)

with httpretty.enabled():
    requests.post('https://httpretty.example.com/api', data='{"nothing": "here"}', headers={'Content-Type': 'application/json'})

assert httpretty.latest_requests[-1].url == 'https://httpbin.org/ip'
```

Parameters

- **method** – one of httpretty.GET, httpretty.PUT, httpretty.POST, httpretty.DELETE, httpretty.HEAD, httpretty.PATCH, httpretty.OPTIONS, httpretty.CONNECT

- **uri** – a string or regex pattern (e.g.: “https://httpbin.org/ip”)
- **body** – a string, defaults to {"message": "HTTPretty :)"} }
- **adding_headers** – dict - headers to be added to the response
- **forcing_headers** – dict - headers to be forcefully set in the response
- **status** – an integer, defaults to 200
- **responses** – a list of entries, ideally each created with [Response\(\)](#)
- **priority** – an integer, useful for setting higher priority over previously registered urls. defaults to zero
- **match_querystring** – bool - whether to take the querystring into account when matching an URL
- **headers** – headers to be added to the response

Warning: When using a port in the request, add a trailing slash if no path is provided otherwise Httpretty will not catch the request. Ex: `httpretty.register_uri(httpretty.GET, 'http://fakeuri.com:8080/', body='{"hello":"world"}')`

classmethod reset()

resets the internal state of HTTPretty, unregistering all URLs

`httpretty.core.set_default_thread_timeout(timeout)`

sets the default thread timeout for HTTPretty threads

Parameters `timeout` – int

`httpretty.core.url_fix(s, charset=None)`

escapes special characters

6.2 Http

`httpretty.http.last_requestline(sent_data)`

Find the last line in `sent_data` that can be parsed with `parse_requestline`

`httpretty.http.parse_requestline(s)`

<http://www.w3.org/Protocols/rfc2616/rfc2616-sec5.html#sec5>

```
>>> parse_requestline('GET / HTTP/1.0')
('GET', '/', '1.0')
>>> parse_requestline('post /testurl htTP/1.1')
('POST', '/testurl', '1.1')
>>> parse_requestline('Im not a RequestLine')
Traceback (most recent call last):
...
ValueError: Not a Request-Line
```


6.3 Utils

6.4 Exceptions

exception httpretty.errors.HTTPrettyError

exception httpretty.errors.UnmockedError(*message='Failed to handle network request', request=None, address=None*)

HACKING ON HTTPRETTY

7.1 install development dependencies

Note: HTTPretty uses [GNU Make](#) as default build tool.

```
make dependencies
```

7.2 next steps

1. run the tests with make:

```
make tests
```

2. hack at will
3. commit, push etc
4. send a pull request

LICENSE

```
<HTTPretty - HTTP client mock for Python>  
Copyright (C) <2011-2021> Gabriel Falcão <gabriel@nacaolive.org>
```

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MAIN CONTRIBUTORS

HTTPretty has received [many contributions](#) but some folks made remarkable contributions and deserve extra credit:

- Andrew Gross ~> [@andrewgross](#)
- Hugh Saunders ~> [@hughsaunders](#)
- James Rowe ~> [@JNRowe](#)
- Matt Luongo ~> [@mhlungo](#)
- Steve Pulec ~> [@spulec](#)

RELEASE NOTES

10.1 Release 1.1.2

- Bugfix: [#426](#) Segmentation fault when running against a large amount of tests with `pytest --mypy`.

10.2 Release 1.1.1

- Bugfix: `httpretty.disable()` injects `pyopenssl` into `urllib3` even if it originally wasn't [#417](#)
- Bugfix: “Incompatibility with boto3 S3 `put_object`” [#416](#)
- Bugfix: “Regular expression for URL -> `TypeError: wrap_socket() missing 1 required`” [#413](#)
- Bugfix: “Making requests to non-standard port throws `TimeoutError`” [#387](#)

10.3 Release 1.1.0

- Feature: Display mismatched URL within `UnmockedError` whenever possible. [#388](#)
- Feature: Display mismatched URL via logging. [#419](#)
- Add new properties to `httpretty.core.HTTPrettyRequest` (`protocol`, `host`, `url`, `path`, `method`).

Example usage:

```
import httpretty
import requests

@httpretty.activate(verbose=True, allow_net_connect=False)
def test_mismatches():
    requests.get('http://sql-server.local')
    requests.get('https://redis.local')
```

10.4 Release 1.0.5

- Bugfix: Support `socket.socketpair()` . #402
- Bugfix: Prevent exceptions from re-applying monkey patches. #406

10.5 Release 1.0.4

- Python 3.8 and 3.9 support. #407

10.6 Release 1.0.3

- Fix compatibility with `urllib3` ≥ 1.26 . #410

10.7 Release 1.0.0

- Drop Python 2 support.
- Fix usage with redis and improve overall real-socket passthrough. #271.
- Fix `TypeError: wrap_socket() missing 1 required positional argument: 'sock'` (#393)
- Merge pull request #364
- Merge pull request #371
- Merge pull request #379
- Merge pull request #386
- Merge pull request #302
- Merge pull request #373
- Merge pull request #383
- Merge pull request #385
- Merge pull request #389
- Merge pull request #391
- Fix simple typo: neighter -> neither.
- Updated documentation for `register_uri` concerning using ports.
- Clarify relation between `enabled` and `httprettized` in API docs.
- Align signature with builtin `socket`.

10.8 Release 0.9.4

Improvements:

- Official Python 3.6 support
- Normalized coding style to conform with PEP8 (partially)
- Add more API reference coverage in docstrings of members such as `httpretty.core.Entry`
- Continuous Integration building python 2.7 and 3.6
- Migrate from `pip` to `pipenv`

10.9 Release 0.8.4

Improvements:

- Refactored `core.py` and increased its unit test coverage to 80%. HTTPretty is slightly more robust now.

Bug fixes:

- POST requests being called twice [#100](#)

10.10 Release 0.6.5

Applied pull requests:

- continue on EAGAIN socket errors: [#102](#) by [kouk](#).
- Fix `fake_gethostbyname` for requests 2.0: [#101](#) by [mgood](#)
- Add a way to match the querystrings: [#98](#) by [ametaireau](#)
- Use common string case for `URIInfo` hostname comparison: [#95](#) by [mikewaters](#)
- Expose `httpretty.reset()` to public API: [#91](#) by [imankulov](#)
- Don't duplicate http ports number: [#89](#) by [mardiros](#)
- Adding `parsed_body` parameter to simplify checks: [#88](#) by [toumorokoshi](#)
- Use the real socket if it's not HTTP: [#87](#) by [mardiros](#)

10.11 Release 0.6.2

- Fixing bug of lack of trailing slashes [#73](#)
- Applied pull requests [#71](#) and [#72](#) by [@andresriancho](#)
- Keyword arg coercion fix by [@dupuy](#)
- [@papaeye](#) fixed content-length calculation.

10.12 Release 0.6.1

- New API, no more camel case and everything is available through a simple import:

```
import httpretty

@httpretty.activate
def test_function():
    # httpretty.register_uri(...)
    # make request...
    pass
```

- Re-organized module into submodules

10.13 Release 0.5.14

- Delegate calls to other methods on socket
- Normalized header strings
- Callbacks are more intelligent now
- Normalize urls matching for url quoting

10.14 Release 0.5.12

- HTTPretty doesn't hang when using other application protocols under a @httprettified decorated test.

10.15 Release 0.5.11

- Ability to know whether HTTPretty is or not enabled through `httpretty.is_enabled()`

10.16 Release 0.5.10

- Support to multiple methods per registered URL. Thanks @hughsaunders

10.17 Release 0.5.9

- Fixed python 3 support. Thanks @spulec

10.18 Release 0.5.8

- Support to *register regular expressions to match urls*
- *Body callback* support
- Python 3 support

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